

## REMARKS

Claims 31 – 39 and 50 - 59 remain in the present application.

### Claim Objections

The present Office Action objects to Claim 55 for an informality and suggests “por” be changed to “port”. Applicants have changed “por” to “port”.

### 103 Rejections

Claims 50-54 are rejected under 35 U.S.C. 103 as being unpatentable over U.S. Patent No. 6,611,519 to Howe in view of U.S. Patent No. 6,522,656 to Gridley and further and US Patent No. 6,173,331 to Shimonishi. Applicants respectfully assert that the present invention as claimed in Claims 32 and 37 is neither shown nor suggested by the Gridley reference, Howe reference, and/or Shimonishi reference alone or together in combination. Applicants respectfully request and appreciate the Examiner reconsidering Claims 50-54.

The present Office Action alleges Howe teaches determining transmission timing constraints of an intermediate network device. To the extent the Howe reference may mention a means to enable a layer one bypass connection for the transfer of incoming data and enable real-time or high-priority packets to bypass standard buffering means, Applicants respectfully re-assert Howe does not teach determining timing constraints of the intermediate network device (emphasis added). The present Office Action also

alleges the Howe reference teaches forwarding to downstream channels as soon as a communication probe is received and analyzed. To the extent the Howe reference may mention store-and-forward packet switching does not take place in a scheduled time [Col 25 lines 10 – 15], Applicant respectfully re-assert the Howe reference does not teach sending information in an unscheduled pre-emptive cut through routing. The present Office Action acknowledges the Howe reference does not teach cut through routing is unscheduled pre-emptive cut through routing and dropping of information based upon timing constraints. Applicants respectfully assert the Gridley reference does not overcome these and other shortcomings of the Howe reference.

The present Office Action alleges the Gridley reference teaches unscheduled pre-emptive cut through routing. To the extent the Gridley reference may mention cut through switching [Col. 5 line 17 to Col. 6 line 14] and if a packet turns out to be invalid the packet is discarded, Applicants respectfully asserts the Gridley reference does not teach performing unscheduled cut through routing of a communication path probe, wherein the information is dropped if said unscheduled cut through routing is not performed within timing constraints. The present Office Action acknowledges the Gridley reference does not disclose dropping information based upon timing constraints. Applicants respectfully re-assert the Shimonishi reference does not overcome these and other shortcomings of the Gridley and Howe reference.

The present Office Action alleges the Shimonishi reference teaches a processor directs the system to drop the incoming information. To the extent the Shimonishi reference may mention discarding a received packet associated with minimizing the vacancy of the transmission medium [Col. 2 lines 1 - 15 –38], Applicants respectfully

assert that the Shimonishi reference does not teach dropping the incoming information with time sensitive characteristics if the switching circuit can not output the information within specified timing constraints according to the time sensitive characteristics.

Applicants respectfully assert the present claimed invention focuses on the time sensitive characteristics of the information rather than the minimization of vacancy on the transmission medium. In addition applicants respectfully assert that Shimonishi reference does not teach unscheduled pre-emptive cut through routing in which current communication of information is dropped and unscheduled information is cut through.

With respect to Claim 51 the present Office Action alleges Howe teaches the path probe update includes information utilized to establish a communication path from a source to destination. To the extent the Howe reference may mention a “pure layer one” embodiment [Col 25, lines 1 - 20], Applicants respectfully re- assert the Howe reference does not teach path probe update includes information utilized to establish a communication path from a source to destination.

With respect to Claim 52, the present Office Action alleges Howe teaches cut through routing [Col. 25 lines 12 –13 regarding request] and a communication path probe update [Col. 25 lines 13 –16 regarding accepting of the request] and upstream forwarding of the communication path probe update [Fig 9 wherein paths for control messages are bi-directional]. To the extent the Howe reference may mention requesting a scheduled time across the layer on network, Applicants respectfully re-assert the Howe reference does not teach a processor for directing said switching circuit to perform unscheduled cut through routing of a communication path probe and a communication path probe update. Applicants respectfully assert that a request for a

scheduled time as mentioned in Howe does not teach a path probe. To the extent the Howe reference may mention accepting a request for scheduled time, Applicants respectfully re-assert the Howe reference does not teach a communication path probe update.

With respect to Claim 53, the present Office Action alleges Howe teaches determining if an intermediate network device has communicated information along a first path that is included in a second path. To the extent the Howe reference may mention upstream/ downstream paths, Applicants respectfully re-assert the Howe reference does not teach determining if an intermediate network device has communicated information along a first communication path that is included in a second communication path.

With respect to Claim 54 the present Office Action alleges the Howe reference teaches determining if the switching circuit is busy performing other switching operations within specified timing constraints. To the extent the Howe reference may mention a request and event schedule [Fig. 3], Applicants respectfully re-assert the Howe reference does not teach a processor directs said time sensitive quality of service management system to drop said incoming information with time sensitive characteristics if said switching circuit is busy performing other switching operations.

#### Allowable Subject Matter

Applicants thank the Examiner for indicating Claims 33 – 39 are 55 – 59 are allowed.

Conclusion

In light of the above-listed remarks, Applicants respectfully request allowance of the remaining Claims. The examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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A handwritten signature in cursive script, appearing to read "John F. Ryan", written over a horizontal line.

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